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EXAMINER
ENGLAND, DAVID E

ART UNIT	PAPER NUMBER
2443	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/975,895	PENK ET AL.
	Examiner	Art Unit	
	DAVID E. ENGLAND	2443	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>21 August 2009</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>16-21,25,26,35-40,42,44,46-56,58 and 60-63</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>16-21, 25, 26, 35-40, 42, 44, 46-56, 58 and 60-63</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 16-21, 25, 26, 35-40, 42, 44, 46-56, 58 and 60-63 are presented for examination.

Claim Objections

2.   Claims 21 and 54 are objected to under 37 CFR 1.75(c), as being of improper dependent

form for failing to further limit the subject matter of a previous claim. Applicant is required to

cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or

rewrite the claim(s) in independent form. Claims 21 and 54 claim bandwidth information of sorts

which has been amended into their independent claims respectively.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 16 – 21, 35, 36, 39, 40, 42, 49, 52, 53, 54, 58, 61 and 63 are rejected under 35

U.S.C. 103(a) as being unpatentable over Kenner et al. (6112239) (hereinafter Kenner) in

view of Haeri et al. (6604241), hereinafter Haeri, in further view of Masuo et al. 6154444,

hereinafter Masuo.

5.   Referencing claim 16, as closely interpreted by the Examiner, Kenner teaches a method

for enabling a receiver in a digital subscriber network to request services, the method comprising

the steps of:

6.   receiving, at a receiver, a dynamic network information table inserted within a transport

stream from a first device, (e.g., col. 16, lines 43 – 67); and

7.   the dynamic network information table including an upstream subtable, (e.g., col. 16,

lines 43 – 67);

8.   the first device positioned in the digital subscriber network upstream with respect to the

receiver, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29 "MSP/redirection

server"),

9.   the upstream subtable including information associated with transmission characteristics

of one or more devices positioned in the digital subscriber network upstream with respect to the

first device, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29);

10.   transmitting a request for a service, the requested service including at least a portion of

the information included in the dynamic network information table, (e.g., col. 16, lines 43 – 67 &

col. 17, line 44 – col. 18, line 29), but does not specifically teach the dynamic network

information table including a device-specific subtable;

11.   the device-specific subtable including information associated with transmission

characteristics of the first device, the first device positioned in the digital subscriber network

upstream with respect to the receiver;

12.   wherein the transmission characteristics include the current network status and the

current level of available bandwidth for each transport stream communicating with the first

device.

13.   It could be argued that the redirection server of Kenner would have to send an address of

some sort to communicate with the user and that could be considered a "transmission

characteristic" but the address of the first device is not explicitly stated.

14.   Haeri teaches the dynamic network information table including a device-specific

subtable, (e.g., col. 15, lines 10 – 31 or col. 15, line 55 - col. 16, line 35 et seq., The ability to

send a "Get" command and receive routing table entries from a first router that would also have

what routing characteristics of other routers which is the essence of a routing table.);

15.   the device-specific subtable including information associated with transmission

characteristics of the first device, the first device positioned in the digital subscriber network

upstream with respect to the receiver, (e.g., col. 15, lines 10 – 31 or col. 15, line 55 - col. 16, line

35 et seq.);

16.   wherein the transmission characteristics include the current network status and the

current bandwidth for each transport stream communicating with the first device, (e.g., col. 15,

lines 10 – 31, Noted: Applicant's specification states that network status can be bandwidth.).

17.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine Haeri's ability to specifically request parameters from all nodes in their

network with Kenner's specific teachings of sublists that include device specific information on

which device can accommodate a specific user's request because it would give the user the

ability to determine which node in the network would be best suited for the request if the user

had all the information needed to make the determination, see Kenner, column 18, lines 53 et

seq. Furthermore, the use of sending information about other devices bandwidth allows systems

to know how much information a link and/or device can support in a network transmission. Haeri

does teach sending bandwidth information but not specifically a current level of bandwidth. It

could be interpreted that the device that sends the bandwidth information, could at one point, use

all the bandwidth it has, and therefore is interpreted as a current level of available bandwidth, but

for completeness and to expedite prosecution the Examiner will rely on another reference.

18.   Masuo teaches the current level of available bandwidth for each transport stream

communicating with the first device, (e.g., col. 4, lines 1 – 26 & col. 5, lines 34 – 60). It would

have been obvious to one of ordinary skill in the art at the time the invention was made to

combine Masuo with the combine inventions of Kenner and Haeri because storing the current

level of bandwidth a device and/or link has allows a system to know what devices and/or links

can support larger amounts of network traffic.

19.   Referencing claim 17, as closely interpreted by the Examiner, Kenner teaches identifying

from the dynamic network information table and upstream device associated with the requested

service, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29); and

20.   including the identification of the upstream device in the transmitted request for the

service, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29).

21.   Referencing claim 18, as closely interpreted by the Examiner, Kenner teaches identifying

a controller associated with the identified upstream device, (e.g., col. 16, lines 43 – 67 & col. 17,

line 44 – col. 18, line 29 MSP);

22.   wherein transmitting the request for the service includes transmitting the request to the

controller, (e.g., col. 16, lines 43 – 67 & col. 17, line 44 – col. 18, line 29 MSP).

23.   Referencing claim 19, as closely interpreted by the Examiner, Kenner teaches

determining a communication path through the digital subscriber network for the requested

service, (e.g., col. 18, line 30 – col. 19, line 50, Mapping the user's IP address to an IP address of

a node that can accommodate the user in the same network.); and

24.   including the communication path in the transmitted request for the service, (e.g., col. 18,

line 30 – col. 19, line 50).

25.   Referencing claim 20, as closely interpreted by the Examiner, Kenner teaches the

communication path is determined based upon network information included in the received

dynamic network information table, (e.g., col. 18, line 30 – col. 19, line 50).

26.   Claims 21, 35, 36, 39, 40, 42, 49, 52, 53, 54, 58, 61 and 63 are rejected for similar

reasons as stated above.

27.   **Claims 25, 26, 37, 38, 50 and 51 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Kenner, Haeri and Masuo in further view of Rakib et al. (6889385),

hereinafter Rakib.

28.   Referencing claim 25, as closely interpreted by the Examiner, Kenner, Haeri and Masuo

do not specifically teach the dynamic network information table is included in a packet having a

reserved packet identifier associated therewith.

29.   Rakib teaches the dynamic network information table is included in a packet having a

reserved packet identifier associated therewith, (e.g., col. 10, line 23 – col. 11, line 11). It would

have been obvious to one of ordinary skill in the art at the time the invention was made to

combine Rakib with the combine inventions of Kenner, Haeri and Masuo because utilizing

packet identifiers allows a system to identify specific streams of packets to a specific request and

therefore resolve the request in the system.

30.   Referencing claim 26, as closely interpreted by the Examiner, Kenner, Haeri and Masuo

do not specifically teach the packet is a program association table packet. Rakib teaches the

packet is a program association table packet, (e.g., col. 10, line 23 – col. 11, line 11). It would

have been obvious to one of ordinary skill in the art at the time the invention was made to

combine Rakib with the combine inventions of Kenner, Haeri and Masuo since utilizing a

program association table packet in a set-top-box network allows the system to associate specific

identification numbers with specific programs which further allows for smaller packets since the

entire program is not requested only a small number, PIDs.

31.   Referencing claim 37, as closely interpreted by the Examiner, Kenner, Haeri and Masuo
do not specifically teach the second transport stream includes multiple elementary streams of the
first transport stream. Rakib teaches the second transport stream includes multiple elementary
streams of the first transport stream, (e.g., col. 38, line 52 – col. 39, line 24, *"channels and
subchannels"*). It would have been obvious to one of ordinary skill in the art at the time the
invention was made to combine Rakib with the combine inventions of Kenner, Haeri and Masuo
because utilizing smaller subchannels allows for a more specific response from the main
channels, i.e. channels that share the same traits, sports, news, etc.

32.   Referencing claim 50, as closely interpreted by the Examiner, Kenner, Haeri and Masuo
do not specifically teach the network information includes a transport stream identifier (TSID)
for the received transport stream. Rakib teaches the network information includes a transport
stream identifier (TSID) for the received transport stream, (e.g., col. 10, line 43 – col. 11, line
11). It would have been obvious to one of ordinary skill in the art at the time the invention was
made to combine Rakib with the combine inventions of Kenner, Haeri and Masuo because of
similar reasons stated above.

33.   Claim 51 is rejected for similar reasons as stated above.

34.   Claims 44, 46, 47, 60 and 62 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kenner, Haeri and Masuo in view of Nobakht et al. (6813639)

(hereinafter Nobakht).

35.   As per claim 44, as closely interpreted by the Examiner, Kenner, Haeri and Masuo do

not specifically teach the first dynamic network information table is included in a program

association table of the first transport stream. Nobakht teaches the first dynamic network

information table is included in a program association table of the first transport stream, (e.g. col.

11, lines 29 – 64 & Figure 10). It would have been obvious to one of ordinary skill in the art at

the time the invention was made to combine Nobakht with the combine inventions of Kenner,

Haeri and Masuo because of similar reasons stated above.

36.   As per claim 46, as closely interpreted by the Examiner, Kenner, Haeri and Masuo do

not specifically teach the second dynamic network information table is included in a program

association table of the second transport stream. Nobakht teaches the second dynamic network

information table is included in a program association table of the second transport stream, (e.g.

col. 11, lines 29 – 64 & Figure 10). It would have been obvious to one of ordinary skill in the art

at the time the invention was made to combine Nobakht with the combine inventions of Kenner,

Haeri and Masuo because of similar reasons stated above.

37.   As per claim 47, as closely interpreted by the Examiner, Kenner teaches the transmitter is

a plurality of transmitters, each transmitter having an identifier associated therewith, and the

processor is adapted to create a dynamic network information table having a transmitter

identifier included therein for each transmitter, (e.g., col. 18, line 30 – col. 19, line 50, IP

address).

38.   Claims 60 and 62 are rejected for similar reasons as stated above.

39.   Claims 48 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kenner, Haeri and Masuo in view of Nakamura et al. (5913039) (hereinafter Nakamura).

40.   As per claim 48, as closely interpreted by the Examiner, Kenner, Haeri and Masuo do not

specifically teach the processor is further adapted to monitor the first communication link and

respond to changes in the first communication link by generating an alert message and sending

the alert message to the transmitter, wherein the transmitter transmits the alert message through

the second communication link.

41.   Nakamura teaches the processor is further adapted to monitor the first communication

link and respond to changes in the first communication link by generating an alert message and

sending the alert message to the transmitter, wherein the transmitter transmits the alert message

through the second communication link, (e.g. col. 10, line 28 – col. 11, line 13 & col. 11, line 35

– col. 12, line 7). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine Nakamura with the combine inventions of Kenner, Haeri and

Masuo because once the server control unit gives the signal to the transmission video name in the

transmission schedule table in job scheduling storage unit, the timer of the client in alarm

interrupt unit starts and therefore aiding in the scheduling of which data streams to store in a

device.

42.   Claim 56 is rejected for similar reasons as stated above.

43.   Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenner,

Haeri and Masuo in view of Pecus et al. (6886029) (hereinafter Pecus).

44.   As per claim 55, Kenner, Haeri and Masuo do not specifically teach the network

information includes bit error information. Pecus teaches the network information includes bit

error information, (e.g., col. 30, lines 5 – 19). It would have been obvious to one of ordinary skill

in the art at the time the invention was made to combine Pecus with the combine inventions of

Kenner, Haeri and Masuo because utilizing a bit error rate allows the users node identify when a

transmission is not complete and what packets need to be re-transmitted therefore allowing a

complete transmission.

Response to Arguments

45.   Applicant's arguments filed 08/21/2009 have been fully considered but they are not

persuasive.

46.   **In the Remarks**, Applicant states in substance that Kenner and Haeri do not teach an

"upstream sub-table including information associated with transmission characteristics of one or

more devices positioned in the digital subscriber network upstream with respect to the first

device", "the device not adding information relating to itself before passing the table", "one or

more devices positioned upstream" and "dynamic network information table".

47.   As to the argument of "the device not adding information relating to itself before passing

the table" and "one or more devices positioned upstream", the Examiner would first like to draw

the Applicant's attention to the limitation "ONE or more". This is interpreted as ONE device is

asked to give information in a table, which is done by the prior art as stated above and in

previous rejections. Furthermore, the information in a header of packets can be interpreted as the

table of information from the first device or any device that requested information from another

device. Haeri teaches gathering information from neighboring routers and therefore also reads on

"ONE or more" devices upstream that are put in a "subtable" since the information from the

other device is not in the header itself.

48.   As to this Remark, the Examiner will go through the limitations and how they may be

interpreted in light of the other claim language. Applicant states that Kenner does not teach a

"dynamic network information table" and that the table taught in Kenner is not "dynamic".

Applicant has stated nothing in the claim that would specifically give patentable weight to the

term "dynamic". Applicant merely names their table a "dynamic network information table". All

that is claimed about the "dynamic network information table" is that it includes a device

specific information and transmission characteristics of other devices "upstream" to the receiver

with other subtables. As one can clearly see in the independent claims, there is nothing

"dynamic" about the Applicant's table, it is nothing more than information about devices. The

claims to not state that the tables change or update in any manner which could be interpreted as

truly dynamic. Therefore the prior art teaches a table similar to the Applicant's, it is just not

named the same. As for the Applicant's over analysis of the term "upstream", the term is merely

relative to a point or location. In the art, all server or ISPs devices are "upstream" to a user's

device and those devices are "downstream" to the user, this is similar to "uploading" and

"downloading" as known in the art. This would mean that no mater where the ISP devices are in

the network, they are upstream to the user. This is very clear in the prior art and can also be seen

in Fijolek et al. 6986157, column 1, lines 53 - 67, noted that this reference is not used in the

rejection but merely to proved a definition that is known in the prior art.

49.   As for the information tables themselves and what they contain in view of the Examiner's

interpretation, Applicant will be asked to draw their attention to columns 18 – 21. In which one

can see that the list of potential sites for a user to download information is sent to them and the

user's device makes the official request for information, col. 19, lines 1 – 50 and col. 20, line 50

– col. 21, line 4. Applicant does not claim what specifically information associated with

transmission characteristics could be and is therefore interpreted by the Examiner as a list of

different addresses for providing data to the user. Applicant has not claimed anything specific

that would further limit the claims so not to be interpreted as such or provided any evidence that

an address could not be interpreted as such. Furthermore, the sublists are updated as seen in

column 19, lines 16 – 28, which would also make them "dynamic". As for the teachings of the

first device sending their information to a user, Haeri was utilized for teaching a routing

environment that propagates all routing information to a requesting user, which would include

the last router in the "chain" or "line" of routers.

50.   Applicant further states that none of the other cited prior art teaches the claim limitations

stated above in this Remark. Examiner's response to the Remarks clarifies where the teachings

and interpretations are and therefore the other remarks are addressed as stated above.

Conclusion

51.   **Applicant is invited to contact the Examiner to further prosecution if there are any**

other discrepancies in light of the interpretation of art and the claimed invention that can

be communicated better in an interview.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DAVID E. ENGLAND whose telephone number is (571)272-

3912. The examiner can normally be reached on Mon-Thur, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tonia Dollinger can be reached on 571-272-4170. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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